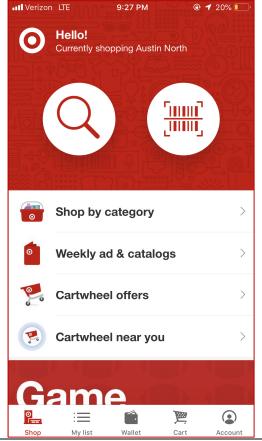
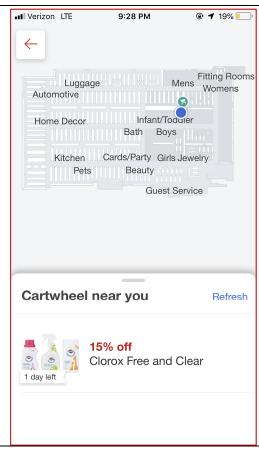
## EXHIBIT C

## **Representative Claim Chart**

## USPN 9,973,899 Claim 11:

## Accused System (emphasis or labels added) Claim 11 Target owns or controls a system including a building (e.g. store, etc.) including therein one or more A system, comprising: facilities (e.g. departments, portions, etc.) each including at least one broadcast short-range a building including one or more communications unit (e.g. beacon broadcast unit, etc.) having a fixed location. facilities therein each including at least one broadcast short-range See, for example, the excerpt(s) below: communications unit having a fixed location and configured to: "Beacon technology is already used by some of North America's top retailers, including Macy's, Target, Urban Outfitters, and CVS." HOW BEACON TECHNOLOGY WORKS Retailers strategically The Beacons connect to It sends a signal to The retailer can provide the place beacons around a customer's Bluetooth the phone and the customer with a wealth their store. enabled smartphone app. app is opened. of information. https://www.shopify.com/retail/the-ultimate-guide-to-using-beacon-technology-for-retail-stores





generate one or more messages including an address portion and a plurality of fields, where at least one value of one or more of the plurality of fields is associated with particular location-relevant information, and

broadcast, via a first wireless communications protocol, the one

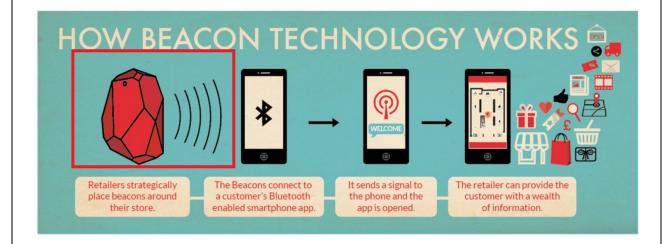
Target owns or controls at least one broadcast short-range communications unit (e.g. beacon broadcast unit, etc.) that is configured to generate one or more messages (e.g. advertisement packets, etc.) including an address portion (e.g. an access address and/or a header address, etc.) and a plurality of fields (e.g. PDU, CRC, etc.), where at least one value [e.g. PDU payload including an identifier that uniquely identifies the location so that unique corresponding content can be retrieved, where the identifier includes a universally unique identifier, etc.] of one or more of the fields (e.g. PDU, etc.) is associated with particular location-relevant information.

The at least one broadcast short-range communications unit (e.g. beacon broadcast unit, etc.) is further configured to broadcast, via a first wireless communications protocol (e.g. Bluetooth protocol, etc.), the

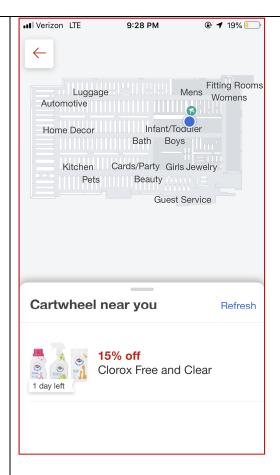
or more messages including the address portion, the plurality of fields, and the at least one value, for intended receipt by any of a plurality of mobile devices in a communication range of the at least one broadcast short-range communications unit, where the system is configured such that one or more mobile device application actions including causing to be output visual information is based on the particular location-relevant information that is, in turn, associated with the at least one value,

one or more messages (e.g. advertisement and subsequent packets, etc.) for intended receipt by any of a plurality of mobile devices in a communication range of the at least one broadcast short-range communications unit, where the system is configured such that one or more mobile device application actions (e.g. display of cartwheel "deals" near you, etc.) including causing to be output visual information (e.g. images of location-specific cartwheel "deals", etc.), based on the particular location-relevant information that is, in turn, associated with the at least one value (see chart of previous claim element).

See, for example, the excerpt(s) below:



https://www.shopify.com/retail/the-ultimate-guide-to-using-beacon-technology-for-retail-stores



"Now, Target is further upping its app game with <u>beacon and Bluetooth technology</u> that shows your location on the app's map as you move throughout the store." https://corporate.target.com/article/2017/09/target-app-mike-mcnamara

"Using **Bluetooth** chips embedded in **Acuity LED ceiling lights**, Target's network of beacons can help you find your way around any Target location-, all via the Target app on your mobile device. "We're rolling out beacon Bluetooth technology that shows your location on the app's map as you move throughout the store," said McNamara."

https://blog.bluetooth.com/bluetooth-beacons-are-on-target-with-a-major-retailer

"Acuity Brands is Bluetooth® beacons which allow a mobile device to locate its own position based on which beacon it detects."

https://acuitysupport.zendesk.com/hc/en-us/articles/115007606147-Indoor-Positioning-How-does-Acuity-s-IPS-work-

<u>Note</u>: As set forth above, a mobile device identifies its position based on which beacon it detects. As set forth below, Bluetooth beacons uniquely identify themselves using a universally unique identifier. Without such unique identification, the mobile device would not be able to distinguish between the beacons (and identify its position based on them).

"Bluetooth beacons are hardware transmitters - a class of Bluetooth low energy (LE) devices that broadcast their identifier to nearby portable electronic devices. The technology enables smartphones, tablets and other devices to perform actions when in close proximity to a beacon.

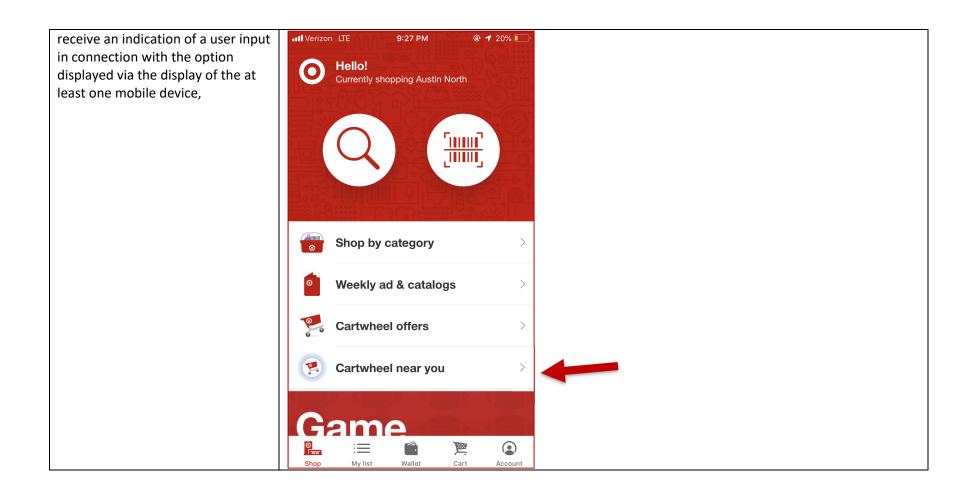
Bluetooth beacons use Bluetooth low energy proximity sensing to transmit a **universally unique identifier** picked up by a compatible app or operating system. The identifier and several bytes sent with it can be used to determine the device's physical location, track customers, or trigger a location-based action on the device such as a check-in on social media or a push notification." https://en.wikipedia.org/wiki/Bluetooth low energy beacon

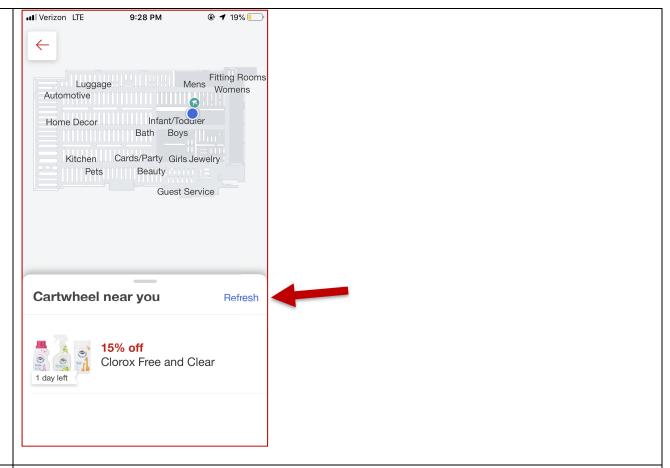
an application configured to be executed by at least one of the plurality of mobile devices, the application, when executed, configured to:

cause display of an option via a display of the at least one mobile device.

Target owns or controls an application configured for execution by at least one of the plurality of mobile devices in the communication range of the at least one broadcast short-range communications unit (e.g. beacon broadcast unit, etc.). The application, when executed, is configured to cause the at least one mobile device to: cause display of an option (e.g. "Cartwheel near you" option or "refresh" option, etc.) via a display of the at least one mobile device, and receive an indication of a user input (e.g. touch on the "Cartwheel near you" option or the "refresh" option, etc.).

See, for example, the excerpt(s) below:





receive an indication of a receipt, from the at least one broadcast short-range communications unit and via the first wireless communications protocol, of the one or more messages including the address portion, the plurality of fields, and the at least one value, and

Target owns or controls an application configured for execution by at least one of the plurality of mobile devices in the communication range of the at least one broadcast short-range communications unit (e.g. beacon broadcast unit, etc.). The application, when executed, is configured to cause the at least one mobile device to: receive an indication of a receipt, from the at least one broadcast short-range communications unit (e.g. beacon broadcast unit, etc.) and via the first wireless communications protocol (e.g. Bluetooth protocol, etc.), of the one or more messages including the address portion, the fields, and the at least one value (see chart of previous claim element). The application, when executed, is further configured to cause the at least one mobile device to, either in response to the foregoing or beforehand, cause to be sent, from the at least one mobile device and via a second wireless communications protocol

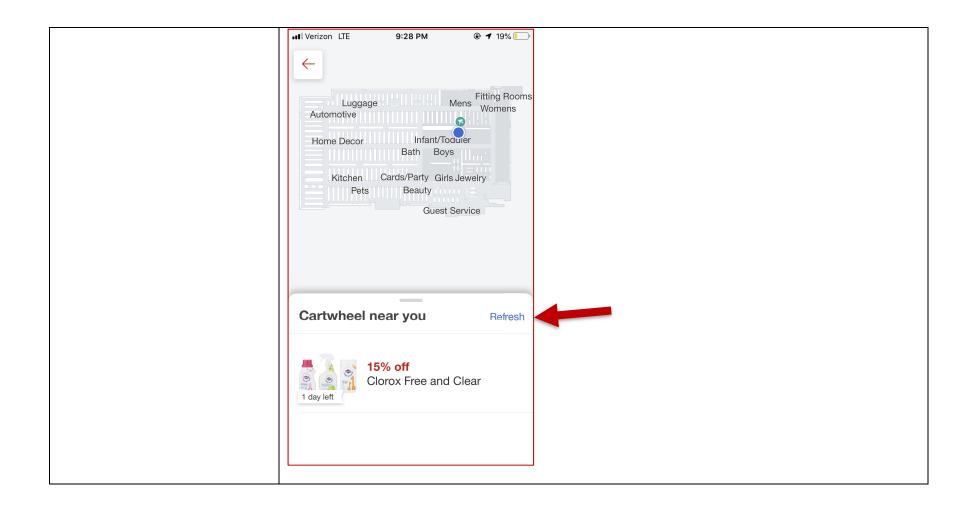
cause to be sent, from the at least one mobile device and via a second wireless communications protocol, at least one message for use in retrieving the particular locationrelevant information; and (e.g. a cellular wireless protocol such as 3G/4G/5G protocols, or a Wi-Fi protocol such as 802.11n/ac protocols, etc.), at least one message (e.g. IP packet(s), etc.), for use in retrieving the particular location-relevant information (e.g. for being subsequently output as a special localized and personalized experience, etc.).

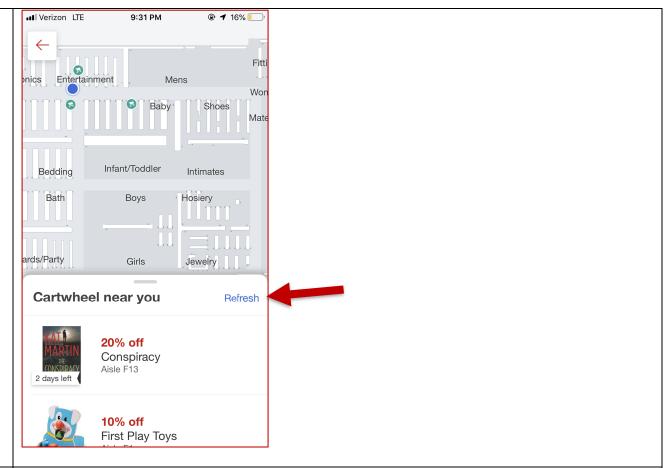
See, for example, the excerpt(s) below:

"Using Bluetooth chips embedded in Acuity LED ceiling lights, Target's network of beacons can help you find your way around any Target location-, all via the Target app on your mobile device. "We're rolling out beacon Bluetooth technology that shows your location on the app's map as you move throughout the store," said McNamara."

https://blog.bluetooth.com/bluetooth-beacons-are-on-target-with-a-major-retailer

<u>Note</u>: As evidenced below by the "refresh" option below, the "cartwheel near you" deals are "pulled" from the server as selected by the user as the user walks throughout the store. In response to selecting such "option", this is accomplished by the mobile device sending, to a server, at least one message for use in retrieving the particular location-relevant information.





at least one server configured to:

receive, from the at least one mobile device and via an Internet protocol, the at least one message,

in response to the receipt, from the at least one mobile device and via the Internet protocol, of the at

Target owns or controls a server configured to: receive, from the at least one mobile device and via an Internet protocol (e.g. TCP/IP protocols used in connection with the cellular and/or WiFi connection, etc.), the at least one message. In response to the receipt of the at least one message, the server is configured to: identify the particular location-relevant information based on the at least one message, and, thereafter, cause to be sent, to the at least one mobile device and via Internet protocol, a response message (e.g. IP packet(s) evidenced by and including "Conspiracy" and "First Play Toys" content, etc.) including the particular location-relevant information (e.g. information including, among other things, images of location-specific cartwheel deals "near you", etc.), for use with the one or more mobile device application actions including causing to be output, via the at least one mobile device, the visual

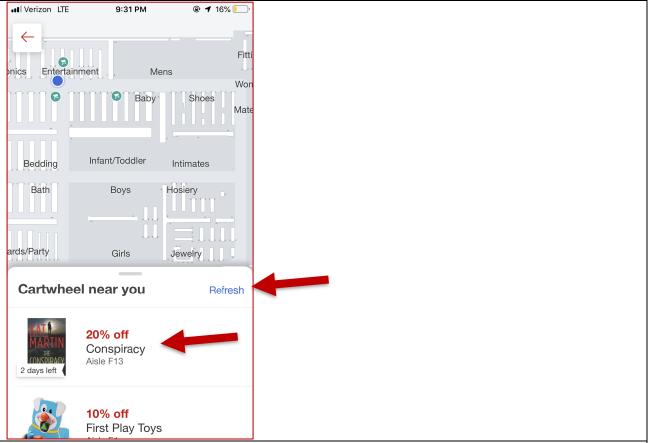
least one message: retrieve the particular location-relevant information based on the at least one message, and

after the particular location-relevant information is retrieved based on the at least one message, cause to be sent, from the at least one server to the at least one mobile device and via the Internet protocol, a response message including the particular location-relevant information, for use in connection with the one or more mobile device application actions including causing to be output, via the at least one mobile device, the visual information;

information (e.g. images of location-specific cartwheel deals "near you", such as a "Conspiracy" image and a "First Play Toys" image, etc.).

See, for example, the excerpt(s) below:

**Note**: As evidenced below by the "refresh" option below, the "cartwheel near you" deals are "pulled" from the server as selected by the user as the user walks throughout the store. In response to selecting such "option", this is accomplished by sending, from the mobile device to a server, at least one message for use in retrieving the particular location-relevant information. After being received at the server, such message prompts the server to retrieve the relevant cartwheel "deal," which is sent back to the mobile device for being displayed, as evidenced below.



said application, when executed, further configured to:

receive, from the at least one server and via the second wireless communications protocol, the response message including the particular location-relevant information, and

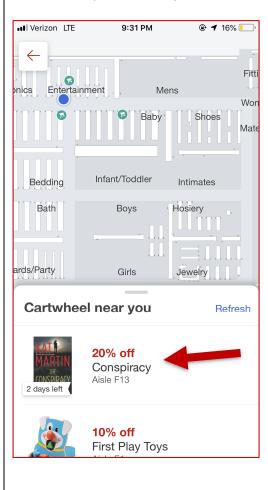
Target owns or controls an application configured to: receive, from the at least one server and via the second wireless communications protocol (e.g. a cellular wireless protocol such as 3G/4G/5G protocols, or a Wi-Fi protocol such as 802.11n/ac protocols, etc.), the response message (e.g. IP packet(s) evidenced by and including "Conspiracy" and "First Play Toys" content, etc.) including the particular location-relevant information (e.g. information including, among other things, images of location-specific cartwheel deals "near you", etc.).

Sometime after the foregoing and after the receipt of the one or more messages (e.g. advertisement and subsequent packets, etc. - see chart of previous claim element), the application is configured to: cause, utilizing the application, the one or more mobile device application actions (e.g. display of cartwheel

after the receipt, from the at least one server and via the second wireless communications protocol, of the response message including the particular location-relevant information, and further in response to the receipt of the indication of the receipt, from the at least one broadcast short-range communications unit and via the first wireless communications protocol, of the one or more messages including the address portion, the plurality of fields, and the at least one value: cause, utilizing the application, the one or more mobile device application actions including causing to be output, via the at least one mobile device, the visual information based on the particular locationrelevant information;

"deal" near you, etc.) including causing to be output, via the at least one mobile device, the visual information (e.g. images of location-specific cartwheel "deals", etc.) based on the particular location-relevant information.

See, for example, the excerpt(s) below (emphasis added):



wherein the system is configured such that the particular locationrelevant information includes different images, and Target uses visual information that include images (e.g. images of location-specific cartwheel deals "near you", such as a "Conspiracy" image and "First Play Toys" image, etc.).

See, for example, the excerpt(s) below (emphasis added):

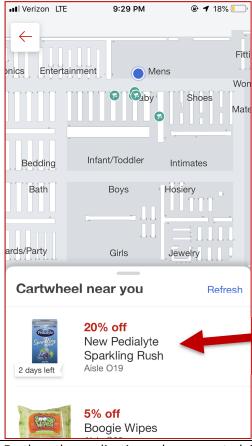


the system is further configured such that, after the indication of the user input is received and after Target owns or controls a system configured such that, after the user input (e.g. touch on the "Cartwheel near you" option or the "refresh" option, etc.) is received and after the output of the visual information (e.g. images of location-specific cartwheel deals, such as the "Conspiracy" image and "First Play Toys"

the output of the visual information is caused, subsequent output of different visual information is caused as the at least one mobile device is moved among a plurality of the facilities of the building;

image, etc.) is caused, subsequent output of different images (e.g. images of different location-specific cartwheel deals "near you", such as a "New Pedialyte" image and "Boogie Wipes" image, etc.) is caused as the mobile device is moved among a plurality of the facilities of the building.

See, for example, the excerpt(s) below (emphasis added):



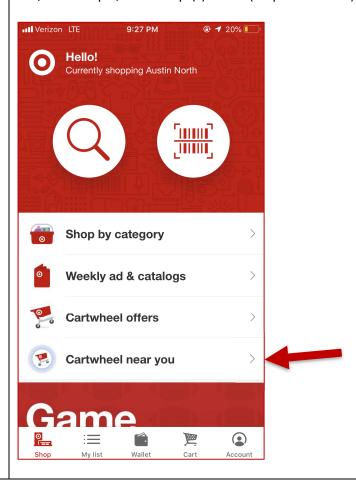
and further wherein the application, when executed, is configured to permit a determination as to whether the

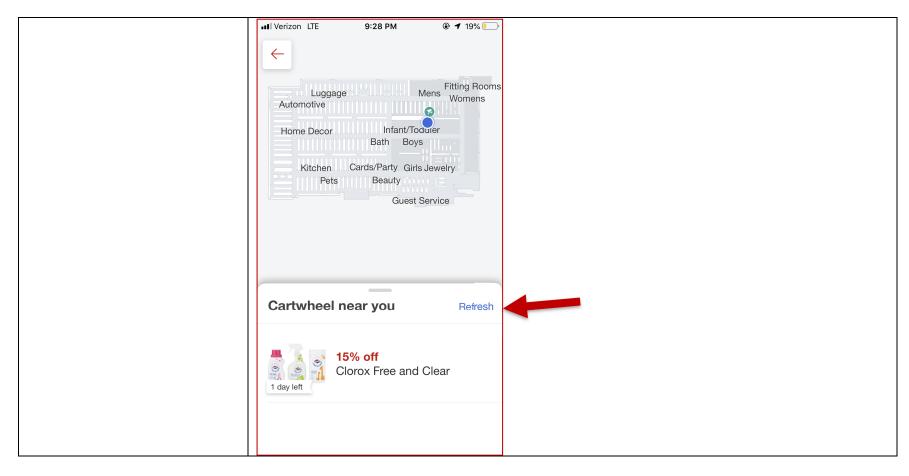
Further, the application, when executed, is configured to permit a determination as to whether the mobile device application actions is triggered. For example, such determination may be based on the option (e.g. the "Cartwheel near you" option or the "refresh" option, etc.) and the user input (e.g. touch on the "Cartwheel near you" option or the "refresh" option, etc.).

one or more mobile device application actions including causing to be output the visual information is triggered.

Thus, this "determination" is performed in connection with and after the user input (e.g. a touch on the "Cartwheel near you" option or the "refresh" option, etc.) is received. Specifically, if the input is indeed "received," it is subsequently "determined" that the causation of the output of the visual information (e.g. images of different location-specific cartwheel deals "near you," etc.) is to be triggered, as set forth above.

See, for example, the excerpt(s) below (emphasis added):





**Caveat**: The notes and/or cited excerpts utilized herein are set forth for illustrative purposes only and are not meant to be limiting in any manner. For example, the notes and/or cited excerpts, may or may not be supplemented or substituted with different excerpt(s) of the relevant reference(s), as appropriate. Further, to the extent any error(s) and/or omission(s) exist herein, all rights are reserved to correct the same.